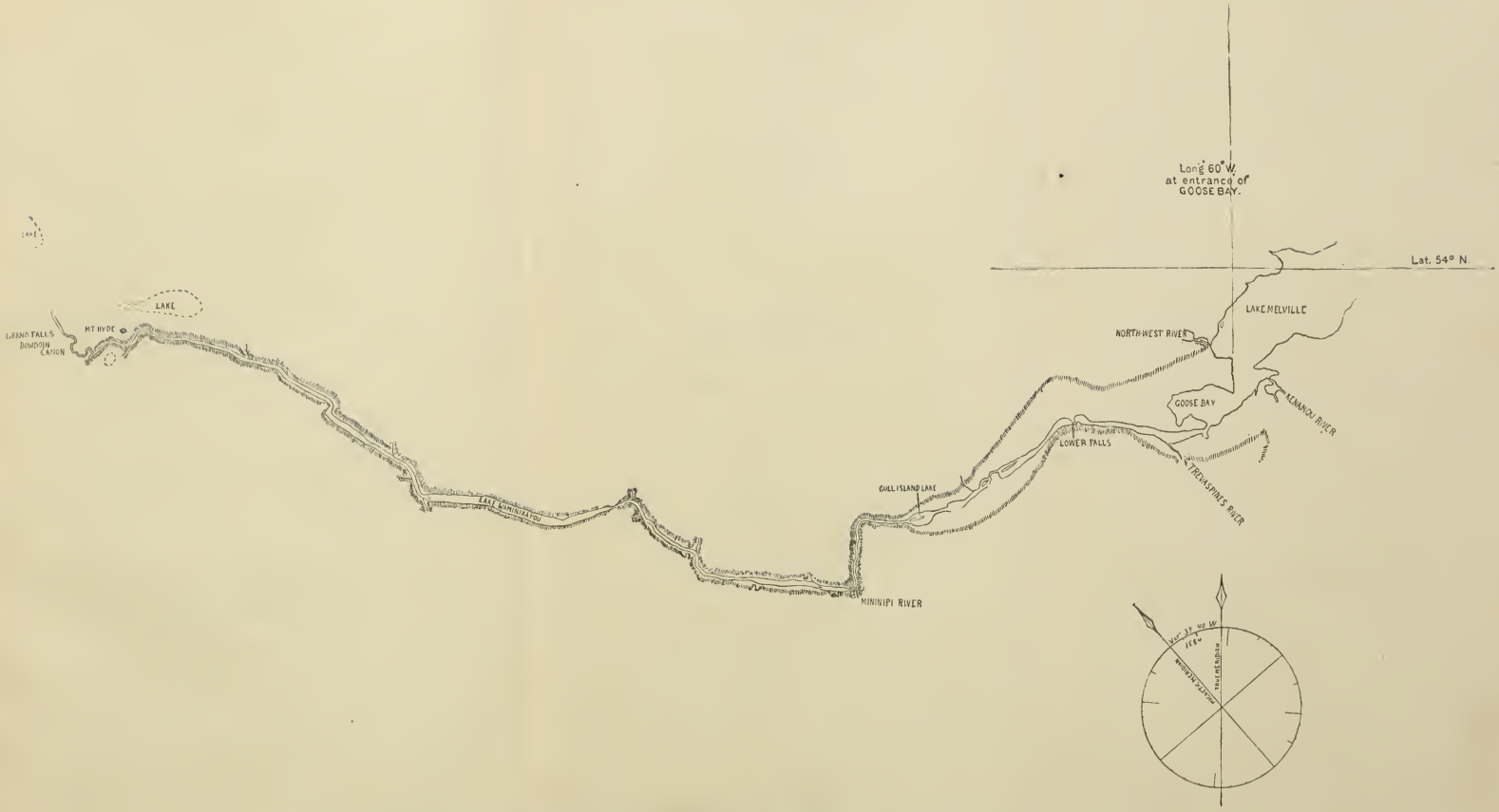

MR. AUSTIN CARY'S ROUTE (APPROXIMATELY LAID DOWN) FROM HAMILTON INLET TO THE GRAND FALLS.

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EXPLORATION ON GRAND RIVER, LABRADOR.

BY

AUSTIN CARY.

Current ideas of Labrador are derived from reports of the coast. Of the interior little is known except that it is a plateau, netted with lakes and flowages, which drain off the edges of the country in a number of very swift, rough rivers. The only account that is accessible of any extensive portion of it is that of Prof. Hind, who, in 1861, starting from the Gulf of St. Lawrence, penetrated the country for a hundred miles along the line of the Moisie River. The general height of land in this region he determined at about 2,200 feet. The country he reported to be naturally covered with caribou moss, and timbered to some extent; but great areas, cleared by fire of every vestige of soil and vegetation, presented an utterly desolate aspect of bare boulders and ledges.

The Grand River, the scene of the Bowdoin Exploration, is not laid down on many of the maps of the country. Nevertheless, it is said to be the largest river in Labrador, and was known years ago to the agents of the

Hudson Bay Co., who, in the early days of their trade, before the Indians had become dependent on trade with the whites, had stations on the lower part of its course. At length, in 1839, John McLean, in the same employ, but starting from Ungava, in the extreme north of the country, travelled up one of the Ungava rivers, crossed through the plateau lakes, and descended the Grand River, reporting on his return a great fall on the Grand River. This fall was subsequently seen by several employés of the company, but not by any accurate observer, and nothing was added to McLean's very general account.* Finally, travel on the river ceased, and river and falls were largely forgotten, until, in 1887, Mr. Randle F. Holme, of England, attempted their elucidation. He ascended the river for 170 miles, but failed in the main object of his search. His report,† however, served to direct attention to the falls, while he was able to make a map of the river, and to put on record many facts in the history of the region. Much that is in that report will, for that reason, be omitted from this, but it must be read with the caution that some of Mr. Holme's surmises about matters beyond the point of his own observation have proved very wide of the mark.

This was the state of things when Prof. Leslie A. Lee was planning the Bowdoin Expedition to Labrador in the spring of 1891. He therefore determined to send a

* See Hind "Explorations in Labrador," v. ii., p. 137.

† Proc. Roy. Geog. Soc., April, 1888. To Mr. Holme's list of men who have seen the fall, William Alves, now of Halifax, should be added. He says that about 1860, while on a journey to "Height of Land," or Fort Nascopee, he visited the fall with several others of his party.

party up the Grand River, and with that in view, boats, camp outfit and provisions suitable for such a trip were carried on the vessel which transported the entire party to the coast. The men to make up the party were all chosen from the vessel, and were either present or former students of the college. Guides were neither necessary nor obtainable, and it was believed that men could not be hired who would be in all respects so satisfactory as those picked from our own numbers. The party then consisted of the following men: D. M. Cole, W. R. Smith, E. B. Young, and the writer.

We had most of the objects of a scientific reconnoissance, for which a leisurely trip is essential. We hoped especially to map out the river and to render a clear account of its surroundings; and to that end went provided with sextant and chronometer, aneroid, compass, etc. But the vessel had to be home in September, while in working up the Labrador coast she was so delayed by fogs and ice that when she arrived in Hamilton Inlet it was decided that but thirty days could be allowed us for the trip. Now the falls were our destination—they must be reached, or our expedition was a failure. Uncertain then of their distance, and of the obstacles to be met, with the example too of Holme's failure before us, it was concluded that on the up-trip nothing should be allowed to interfere with our progress. The up-trip then resolved itself into a grand rush to reach the fall. Now, on the way back, as it proved, we had all we could do to take ourselves out of the country; so that the expedition, as a whole, was productive of far less accurate information than was hoped. In any inferences as to distance covered or obstacles

met, it must be taken into account that what was accomplished in this case was done by young and vigorous men, working steadily up to the limit of their strength.

The vessel entered Hamilton Inlet July 23d, and three days later, on Sunday, July 26th, being then near the head of Lake Melville, and within a few miles of the mouth of Grand River, she was hove to, the boats put over her sides, and the river party left to their own resources. Next morning we entered the mouth of the river, and met with a fair sample of it in the shape of a deep, strong current, which drove us at once into shoal water.

The river's mouth on the charts is put at about a mile wide, but, entering between the low, wooded points which bound it, it soon expands to two or three miles. The banks here are sand plains but a few feet in height, but gradually rising as we proceed. Several miles away on either hand, and parallel to the general course of the river, run high, steep-sided ridges, the prolongation of the rock walls in which the lake below is contained. Both plain and hills are wooded, and in this sheltered valley the trees grow to a large size. Joseph Michelin, the only settler on the river, was found by the party chopping spars. Except a camp of Indians, he was the last human being seen on the up-trip, while his house was a welcome shelter to two of us on the way down. One time and another considerable was seen of Michelin by the party. He was a hunter and trapper by trade, in parentage a mixture of Scotch, Eskimo and French Canadian, and a very bright and interesting man withal. He confirmed our own judgment about the volume of the river in high water. In spring, when

six feet of snow are melting over the country, the volume which pours down this great valley must be tremendous.

Twenty-five miles up the river is the lower fall, so-called, where a half mile of rapids, with a low plunge at each end, makes, according to Mr. Holme, a difference of level of seventy feet. Below the fall the river expands into a round pool several miles in diameter, across which, from the fall, runs a heavy and regular swell. This point was reached early on our second day, and here the crew was put to the first severe test. By that fall the outfit must be carried bodily, so after a square meal every man shouldered fifty pounds, carried it up the steep bank, over the level, and down to the water's edge on the other side. Our boats weighed eighty pounds apiece, and the outfit otherwise amounted to about 500 pounds. To carry it half a mile was a half day's work, that for the time being used up the crew. Rest was needed, and since during the two nights out nobody had slept much on account of the flies, camp was made and we prepared to take the comfort of the situation. A bed was made on the sand, with a tent of mosquito net over our heads, and then, our cooked food having given out, the cook got out his flour and tins and began his humble but essential ministrations. Camp cookery at best is rather a wearing process, but the agonies of a man whose hands are tangled up in dough, and whom the flies becloud, competing for standing room on every exposed portion of his body, can be imagined only by the experienced. Mosquitoes and flies are the chief obstacle to summer life in Labrador. When travelling for

any length of time in the woods, the blood they draw is a very serious matter.

The next two days were passed without noteworthy incident. We were gradually getting hold of the country. The sand plains were rising into terraces, and mounted finally to a height of several hundred feet. The rock walls still continued, becoming more regular and even. The vegetation was the subject of remark until its main features became familiar. Spruce is decidedly the tree of the region,* but fir, birch, hackmatack and alder are also abundant, while there was a variety of smaller vegetation. Berries were in places quite plentiful, and they figured largely in the diet of Cole and myself on the return. In fact, neither the weather nor the surroundings were markedly different from those that attend camping out in Maine at the same season of the year.

Sixty-five miles, as the trappers call it, from the mouth of the river, is Gull Island Lake. This was reached July 30th, and found to be some three miles wide, and to lie within banks of sand. Into its head runs the first of a series of heavy rapids, and here for the crew a different kind of business began. The Gull Island is a heavy, dangerous rapid, and, as we found it, was seven miles long. The next rapid centres on the first square turn of the river seen on the map. It is divided in low water into four distinct pitches, and has on each side many hard obstacles to pass; but the swiftest piece of water on the river, though of moderately easy passage

* Along the river, as has been said, large trees are found. On the plateau, however, a spruce eight or ten inches through would, so far as observed, be a large one. The trees are also thick and bushy.

on the north shore, lies for about a mile above and below the Minninipi River.* Connecting all these rapids is a swift current against which it is impossible to row, and in high water the rapid for this whole distance would be continuous. The passage up was rough work, and a number of short carries were necessary, while on one occasion we cut out a portage path of a quarter of a mile. Neither was the passage made without accident. One boat got to leaking, while the other was upset and many valuable things lost, including our only barometer and a quarter of our provisions. This disaster, due to the feeling of rush which begrudged the time required to lash in the loads, has been the subject of very great regret.

The river along here runs generally on the country rock, which on each side lies always close at hand. Emerging from the Minninipi rapid the river becomes wider, and, while a strong current runs in its channel, inshore good progress can generally be made with the oars. Camp was made August 3d, on an island six miles above the rapid, and a cache of a little flour and a can of beef left. The next two days, tracking being frequently necessary, we covered about thirty-five miles; while on August 6th the last recorded rapid was passed, and we reached the great landmark on our journey, Lake Waminikapou.

This point Mr. Holme called 150 miles from the mouth of the river, and I have no reason to revise his estimate.

* The party did not remain long enough about Hamilton Inlet to add to the nomenclature of the country as given by Mr. Holme. The river mentioned, however, seemed always to be pronounced as here spelled, and I have, therefore, in this respect, departed from Mr. Holme's usage.

A little beyond lay the furthest point reached by him, where, delayed by a gale, and with supplies exhausted, he had been compelled to turn back. This point we had reached in ten and a half days, and we felt thoroughly self-satisfied. And there was other cause for rejoicing; for it was a fine afternoon and amid grand surroundings that we entered the lake. As we gradually worked out of the swift water, the terraces of sand and stones were seen to give way, and the ridges beyond to approach one another and to erect themselves, until at the lake's mouth we entered a grand portal between cliffs on either hand, towering for hundreds of feet straight into the air. And looking beyond and between the reaches of the lake were seen, a ribbon of water, lying between steep-sided ridges, over the face of which, as we pulled along, mountain streams came pouring.

It was a time for enthusiasm, but leisure for enthusiasm was short. Rowing a few miles up the lake, we camped on the beach and made preparations for a record-breaking day on the morrow. That morrow was no disappointment. We put 40 miles to our credit, and at 6 o'clock in the afternoon in a pouring rain made camp five miles above the lake. Next morning, much to the regret of all of us, the party was divided. The distance of the fall was uncertain, while, owing to the upset, provisions were becoming short. Young, moreover, was useless. A strain, early in the trip, with continued labor, had caused his arm to swell and become painful, till he was unable either to work or sleep. He and Smith, therefore, taking necessary stores, started back for the settlement. They shot most of the rapids,

and reached Lake Melville in three days without accident, but in passage on a sail-boat to Rigolet, were caught one night in a squall and had to cut their boat adrift for their own safety. If these men had not turned round, the falls would not have been reached. The men who made this sacrifice did so willingly, and they deserve as much credit for the final success as those who went on.

Here I must digress a little to the structure of the country. The interior of Labrador, it is understood, is a plateau some 2,000 feet * in height; and the Grand River in this portion of it flows, not at the plateau level, but in a valley or trough cut into it to nearly its entire depth. This valley above Gull Island Lake is narrow, two or three miles wide at most, and even this width is in most places largely taken up by loose material, sand and stones, left here at an earlier period. The sides of this valley from the river level present, as I have mentioned, the appearance of parallel, steep-sloping ridges, the contour of which is often remarkably even for long distances. This is particularly the case through Lake Waminikapou and above. Except for one great vertical bluff on a sharp turn about thirty miles above the lake, I remember no other place up to the end of our travel where this contour is markedly broken. Through the rapids the contour of the walls is far less irregular, but at Gull Island Lake and for some distance below the structure comes out again with considerable regularity. The largest streams come in

* See Mr. Holme's paper. Our party never ascended to the plateau level except at the upper end of our travel, and the statements in this paragraph are consequently based on what was seen and inferred from the river level.

through deep branch valleys, and such branches are indicated on the map. A very picturesque feature of the river is the large number of smaller streams which come in over the ridges as torrents and cataracts. Lake Waminikapou, it should be said, is but a section of this valley, forty miles long, which has been dammed up. The loose material too has been cleared out here, the only remains of it seen being a high sand bank on the north side near the outlet.

We had two days clear rowing above the lake and must have covered fifty miles when we again struck rough water. This necessitated tracking again, but at the end of a day the river had become so rough that, after reconnoitering ahead, we concluded we could make better progress on foot; so we made camp there in the spruces on the bank, and in the morning the boat was brought into the woods out of reach of the sun, the stuff stowed snugly away under it, packs made up, and we started off. A blanket bag apiece, one rubber blanket, the camera and compass, a hatchet, a revolver with shot cartridges, and provisions for a week, made up a load for each man of twenty or twenty-five pounds.

The first move was to get somewhere where we could see. A steep climb up over the old beaches brought us for the first time on the Labrador plateau. We could see the river course for some distance above and below, but what was of more account was a bare round-topped mountain some miles to the north, rising clear of any neighboring elevation. This we determined to climb, hoping that from it we might see the mist of the fall; and so, compass in hand, we set out for it, tramping among bushy spruces growing scatteringly out of deep

springy beds of moss. At length we gained the top. No sign of the fall greeted us. We could see the river valley stretching for miles, looking in its contour and regularity like the Colorado cañon. On the opposite side above two branch valleys came in. A large lake lay just to the east of us. Another was shining away off in the north, while ponds of various sizes were scattered over the country in every direction. All the near country was wooded, but off in the northeast a number of bare ridges were seen, and in their neighborhood a fire was raging.

Taking the bearing of important points, we returned to the plain. The night was spent close to the river, and next morning travel was resumed along its shore. A large branch on the opposite side was passed, and dinner taken where a second came into the main stream. Here the river abruptly contracts and turns a right angle, while we were driven on to the plateau by the narrowness and steepness of its gorge.

The next day was the 13th of August. We had been jumping at the work ever since the start, and it had begun to tell severely. The food in our packs was by this time half gone, and, whether or no the falls were reached, it looked as if that day must be the last of our forward march. With the idea then of making that day tell for as much as possible, we quit following the windings of the river, and struck out parallel to its general course; and so for an hour or two, pestered by flies and expecting little, we plodded along rather listlessly. And we had just sighted a hill in the distance and had determined to make for it, when Cole called my attention to a roar coming from the direction of the river. We

had often heard such sounds on the previous day, and going up could always look down into a great deep gorge, where the river, hundreds of feet beneath, was plunging along in heavy rapids; but this sound was perhaps heavier than others, and the river we knew was a long way off, so we headed up for it and began to travel with more snap and interest. The sound at first held off, but that was a good sign. At length it gradually increased, became greatly heavier, and as we travelled now more hopefully, the roar of a sudden changed character,—it seemed tremendous and close to, and somehow as if it were not muffled up in a cañon—while from away down to the left came a periodical pounding. That put us into a run, and in a minute we caught the flash of white water through the spruces, and, bursting through the fringe of bushes, found ourselves on the shore of a heavy rapid, at our own level, and the falls were smoking and pounding below.

The roar which had attracted us was that of the river running at the plateau level. Where we came out upon it, about a mile above the fall, the river was nearly 200 yards wide, a heavy boiling rapid. Walking down over the great blocks of rock which form the shore, the river is seen to narrow; it becomes rougher too, and makes two or three minor plunges of ten or fifteen feet. Going down to the brink of the main fall, and standing on the ledge beside it, the river is seen coming down from the north, plunging right at you. Just above where you stand, the river gathers itself into a narrow, straight shoot of tremendous velocity and power, which, at first nearly horizontal, curves gradually downward over a similar curve in the jointing of the rock, until, after a

long steep slide, it drops vertically into a basin filled with flying mists. Below the fall the river for half a mile flows east, the abrupt turn at the fall rendering impossible a face view of it from the left bank. The opposite side of the basin is vertical, but the nearer side, while very steep, has seams in it with occasional fringes of bushes, which make it possible for a man to climb down to the level of the river. Mr. Cole scrambled down with our Kodak camera, and took pictures of the fall and gorge which are used in illustration. The writer at the same time was occupied in an attempt to get at the height of the fall. Our sextant was at the boat and the aneroid in the Horseshoe rapid, so an original device was rigged. The theory was good, and the result would doubtless have been tolerably satisfactory had not a couple of the little black flies, which had otherwise done us so much injury, crawled in by the cross-levels in the bottom of my compass and vitiated the sights. The height of the fall was estimated at not over 200 feet, but it has since been determined to be considerably greater. An estimate of the volume of water is very difficult to give. We saw the fall at a time of low water, but the volume then running amounted to a very considerable river, as large, I should say, as the summer volume of any of the rivers of Maine. Tradition about the Inlet has it that the first white men who ever saw the fall were attracted to it by the mist which was seen from a distance of many miles; that when they came nearer the ground shook, and that only the most courageous of the party dared to approach the brink. Little wonder that the Indians avoid, as a supernatural object, such a manifestation of power

For the sake of completeness I shall say here that Mr. Cole walked up-stream to a point three or four miles above the fall, and there climbed a tree from which he could see a couple of miles further. The river was a heavy rapid all the way. The elevation climbed the day we left the boat was christened Mt. Hyde. The distant lake seen from its summit, and outlined on the map, was supposed to be Petchikapou, where old Fort Nascopee was located. Plotting our data as best I can, I judge the lake to be not more than fifteen miles from the fall, and in the direction from which the river is flowing.

At the fall begins the structure which we have taken the liberty to name "Bowdoin Cañon." One of the illustrations is a view in its upper end, looking down stream from the foot of the fall. The vertical wall on the opposite side is somewhat higher than the fall. Some four miles below, in a turn to the west, the river has cut into the northern face of a hill, and here again the wall is vertical. The river is very wild meanwhile, and if the fall is 300 feet in height, this cliff cannot be less than 500. On the return we travelled as directly as possible from the head to the foot of the cañon, and estimated the distance at nine miles. One way or the other, nearly the whole length of the cañon was seen. Its course was very winding, with many sharp turns, and I have no hesitation in saying that its entire length is as much as twenty miles. The river occupies the whole width of the bottom, averaging, it is judged, something like 100 yards. For the whole distance it is exceedingly rough, and there are many minor falls and plunges which make the change of level

very rapid. At its foot, therefore, the structure cannot be less than 800 or 1,000 feet deep, while it is probably deeper. It was descended but once, at the head, and so steep are the sides that at but few points throughout its length would descent have been possible.

I have previously described the character of the river valley below. It is, in brief, a trough cut into the plateau, differing from the cañon in being wider, and in having walls much less steep. It is, in short, an older structure. Now the cañon opens into the side of this valley, and at right angles to it. The valley extends straight by, continuous in direction and character, but while, as seems evident, the main drainage of the country once flowed through this channel, it now holds but a small stream compared with the volume pouring out of the cañon. The branch coming in from the west some miles below is much larger, carrying probably one-fourth the volume of the main stream.

Here I shall briefly close my narrative, leaving for the end the task of gathering up a few salient points. One day was spent in the neighborhood of the fall, then we set out on the return. Late in the afternoon of the second day we reached the spot where we had left our boat. A hard sight was before us. Our campfire had hung in the ground, and in the middle of a half-acre of burnt moss and uprooted trees we found the ashes of our outfit. With the nearest cache 150 miles away, this constituted a serious situation; so fishing everything useful out of the fire, and throwing away all unnecessary load, we once more slung on the packs and struck out down river. Progress was made on rafts and afoot. We had a little food to start with.

Trout and berries added something, while the squirrels helped out still more. Fourteen days from the burnt boat the river was behind us, and we turned up at Joseph Michelin's door; and three days later, on September 1st, we met the vessel at Rigolet, and climbed over her sides to a square meal and a hearty welcome. Society, literature, æsthetic pleasures were for us superfluous. Life for the next few weeks was a round of eating and sleep.

One inference drawn from this experience I wish to spread as far as the knowledge of it goes,—and that is the value at such a time of sleep. We carried our blankets through and made it a point every night to build a brush bed, have a camp fire, and take all the comfort possible. This sometimes cost a good deal, but it paid abundantly. It is my judgment that a man, caught in circumstances where strength has to be carefully husbanded, should sacrifice almost anything for the sake of sound sleep.

To sum up the main points, Labrador is a part of the oldest land on the American continent, and its surface is the product of long erosion and of glaciation. This surface in the region under discussion is according to Mr. Holme 2,000 feet above the sea, and, so far as our limited observation goes, it is reduced in the interior to a pretty even general level with perpetual minor elevations and depressions. The Grand River flows in a valley cut deeply into the plateau, a valley shaped for the most part by the action of water and ice. The cañon is a younger structure, and untouched by glaciation. The magnitude of these structures is evident; but when it is remembered that they are formed in the hardest

crystalline rocks, their grandeur and impressiveness are multiplied.

The length of the river from Lake Melville to the fall is thought to be a little less than 300 miles. Points of the compass where mentioned in the text are magnetic.